**Draft of positions on the PCB and TSCA disposal issues for the Mill Banks**

**Kathy Huibregtse** to: Sam Chummar 04/18/2008 03:20 PM

Cc: "Mark Schneider", "James Hutchens", "Nathan Weber", jennifer.hale

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| Kathy Huibregtse | 04/18/2008 03:20 PM | Draft of positions on the PCB and TSCA disposal iss |

Hi Sam

Attached for your consideration is a position paper that provides you some possible rationale for addressing disposal of the residuals from the Plainwell Mill banks for use in your discussions on Monday. We have prepared this as draft for your consideration and would be glad to discuss further. Please let either Jennifer or me know have any comments or questions regarding the contents.

I will be available by cell on Monday at 414/687-2430 and Jennifer is in the office. Have a nice weekend.

Jennifer and Kathy

**DRAFT 4/18/08**

**Plainwell Mill Banks – Inapplicability of TSCA to Plainwell Mill Banks Sediments**

## I. Background

The purpose of this memorandum is to provide support for Weyerhaeuser's conclusions that (i) it was appropriate to remediate the sediments at the Plainwell Mill banks consistent with the Time Critical Removal Action (TCRA) performed by Georgia-Pacific Corporation and Millennium Holdings, LLC, and (ii) to dispose of those sediments as non-PCB remediation wastes.

On February 14, 2007, the United States Environmental Protection Agency issued an Enforcement Action Memorandum for the TCRA, documenting its determination that the conditions in the Plainwell Impoundment, immediately downstream of the Plainwell Mill banks, pose an imminent and substantial threat to public health and the environment as defined in 40 C.F.R. 300.415(b)(2). On June 28, 2007 Weyerhaeuser submitted a proposal to EPA to conduct emergency response actions to "prevent, abate or minimize" a potential release of waste material from the banks of the Plainwell Mill property in accordance with Paragraph 67 of the *Consent Decree for the Design and Implementation of Certain Response Actions at Operable Unit #4 and the Plainwell Inc. Mill Property of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site,* Docket No. 1:05CV003 (Decree). Weyerhaeuser's proposal was based on its concern that the TCRA could impact sediments along the Plainwell Mill banks, and Weyerhaeuser specifically stated that "[u]nless otherwise approved by EPA, specific emergency response work to be performed by Weyerhaeuser to address the threatened release will be designed and performed in a manner that is consistent with applicable provisions of the ... Former Plainwell Impoundment Time-Critical Removal Action Design Report ..." EPA replied to Weyerhaeuser's notification on June 29, 2007, authorizing Weyerhaeuser to "conduct such response activities as are necessary to 'prevent, abate, or minimize' the potential release of Waste Material from the banks of the Mill under paragraph 67" of the Decree.

## II. Justification of Comparability to the TCRA

The Decree does not prescribe specific actions that must be conducted in order to address an emergency, but Weyerhaeuser concluded, based on the fact that the contamination and situation at the Plainwell Mill banks were essentially identical to those along the Plainwell Impoundment, that the material should be managed in a manner comparable to the Plainwell Impoundment TCRA.

Pursuant to EPA's Enforcement Action Memorandum for the TCRA, the Agency concluded that conditions in the Plainwell Impoundment, which is immediately downstream of the Plainwell Mill banks, pose an imminent and substantial threat to public health and the environment. EPA considered the following criteria in reaching this conclusion:

- *Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants*

- *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate*
- *Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released*
- *The availability of other appropriate federal or state response mechanisms to respond to this release.*

Weyerhaeuser reviewed the conditions along the Plainwell Mill banks and established that the same conditions exist along the Plainwell Mill banks, based on the following facts:

- *Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants* – Data collected by others confirmed that PCBs were present along the Plainwell Mill banks at concentrations greater than the Michigan 201 Standards for soil and preliminary risk based clean-up levels established by Michigan Department of Environmental Quality (MDEQ) in the Baseline Ecological Risk Assessment. Typical concentrations in residuals along the Plainwell Mill banks ranged from 10 to 20 ppm total PCBs. These past evaluation also established that residuals present along the Plainwell Mill banks are generally similar in nature and concentration to those found across the river from the Mill site and along river banks adjacent to the Plainwell Wastewater Treatment Plant (immediately downstream of the Mill).

- *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate* - PCB residuals were clearly visible adjacent to and in the main stream of the Kalamazoo River at low flow conditions. Furthermore, the initial schedule for the Plainwell Impoundment TCRA established flow diversion of the Kalamazoo River within months and complete re-routing of the main channel of the river near the former Plainwell Dam within two years.

- *Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released* – The same weather conditions documented in the Enforcement Action Memorandum for the Plainwell Impoundment TCRA apply to the Plainwell Mill banks site: extreme weather conditions in winter or spring that would exacerbate the threat of release of PCBs. Furthermore, since the banks downstream of the Plainwell Mill already had been remediated, the potential to recontaminate the downstream areas due to weather induced mobilization was another factor.

- *The availability of other appropriate federal or state response mechanisms to respond to this release* – There were no state or local response mechanisms available to respond to this potential release. Weyerhaeuser had been requested by the City of Plainwell to consider addressing the residuals on the banks while limiting adverse impacts to the City owned property.

Weyerhaeuser's June 28, 2007 notification letter to EPA cited studies by both the United States Geological Survey and the United States Department of Agriculture, which concluded that the

banks along the Kalamazoo River, including the area along the Plainwell Mill would be destabilized upon removal of the downstream dams and that erosion would widen the channel and erode the toe of the slopes adjacent to the river. Since residuals containing PCBs were clearly visible along the toe of the slopes, Weyerhaeuser proposed an Emergency Action along the Mill banks to address the imminent threat in a manner consistent with the applicable provision of the TCRA and the future land use of the Mill site. Neither EPA's June 29, 2007 authorization letter nor Paragraph 67 of the Decree contains standards or procedures for conducting the emergency response.

However, because the action addressed circumstances identical to the TCRA, which EPA previously and thoroughly considered and approved, Weyerhaeuser's decisions to conduct the action comparably to the TCRA and to dispose of the sediments as non-PCB remediation waste are appropriate.[1]

## III. The Plainwell Mill Bank Sediments Are Not PCB Remediation Waste

It is Weyerhaeuser's understanding that EPA believes that the Plainwell Mill bank sediments are PCB remediation waste because, even though the current concentrations of PCBs in the sediments range from 10 to 20 ppm, discharges could have occurred from the wastewater facilities or there could have been uncontrolled releases from open or abandoned disposal after the effective date of the PCB regulations. EPA has contended that, since the PCB concentration of some materials in the disposal site exceeds 50 ppm, the concentration in the original discharge could have been 50 ppm or higher. EPA has noted that, in accordance with 40 C.F.R. 761.50(b)(3), if either the date or concentration of the PCBs released is unknown, TSCA regulations assume the PCB release is regulated. EPA has suggested that both the date and concentration of the PCBs released in this case are unknown and, therefore, the sediments must be presumed to be PCB remediation waste.

However, data regarding paper and pulp manufacturing and regarding the presence of potential upstream sources establishes that the sediments from the Plainwell Mill banks do not meet the definition of PCB remediation waste under 40 C.F.R. 761.61 and, therefore, Weyerhaeuser can satisfy the "burden of proof" set forth in 40 C.F.R. 761.50(b)(3).

Under 40 C.F.R. 761.61, PCB remediation waste is defined based on the concentration and timing of the original spill:

- Materials disposed of prior to April 18, 1978, where the current concentration is 50 ppm or greater regardless of the concentration of the original spill.

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[1] Weyerhaeuser also notes that an action may still be considered a removal action, even if it is directed by a remedial project manager. EPA guidance clearly establishes that removal actions can be conducted at any time during the CERCLA process at National Priorities List (NPL) sites. *See* RCRA, Superfund & EPCRA Hotline Training Module - The Superfund Response Process, at 18 (updated 1998). This guidance expressly notes that "[w]hen a removal takes place at an NPL site, it may be directed by an RPM and performed by remedial contractors." Thus the emergency action removal activities along the Plainwell banks can be directed by either an OSC or an RPM.

- Materials that are currently at any concentration, if the original source was 500 ppm or greater beginning on April 18, 1978 or 50 ppm or greater beginning on July 2, 1979.
- Materials currently at any concentration if the PCBs are spilled or released from a source not authorized for use under the TSCA regulations.

PCB-containing material deposited along the Plainwell Mill banks most likely came from a mix of primary and secondary sources including wastewater discharges from the various mills and erosion of material from disposal sites and depositional areas along the river banks. According to a 1977 report prepared for EPA, wastewater discharges from the paper facilities would not have included PCB levels above 50 ppm after 1975. *See* PCBs Involvement in the Pulp and Paper Industry prepared for EPA by Versar, Inc. (1977) (NTIS Number: PB-271 017) ("Versar Report").

According to the Versar Report, the amount of PCBs in carbonless copy paper diminished rapidly after 1971. The industry accomplished this by not using cutting scrap from office forms production and limiting use of office waste in recycled paper products. The Versar Report states that concentrations of PCBs in paperboard declined from 15.3 ppm in 1972 to 1.4 ppm in 1974. The model included in the Versar Report assumes that the PCB concentration in sludges is expected to be essentially the same as the concentrations measured in product materials (*see* p. 59) and estimates sludge PCB concentrations at 2 ppm (*see* p. 81) but may get as high as 10 to 20 ppm in sludges. Since PCBs are strongly adsorbed to solids, the solids and associated sludges would be the primary source of the PCBs on the banks Thus, the wastewater discharges from the various paper mills after 1975 would not have exceeded either the 500 ppm or the 50 ppm threshold.

Moreover, readily available data from the Kalamazoo River Superfund Site database and the Draft Generalized Site Conceptual Model report (June 2007) establish that unreported releases from known or upstream sources, including disposal areas not yet closed, do not exceed and have not exceeded the 50 ppm threshold.

Specifically, water quality samples were collected from 1985-1988; 1994; 1999, 2000 and 2001/2002 (*see* Figure 4-11 of the Generalized Conceptual Site Model). All samples were analyzed for PCBs. CDM collected samples for the MDEQ in 1999, 2000 and 2001/2002 and included analysis for both PCBs and Total Suspended Solids. Given the fact that PCBs are extremely hydrophobic, it is possible to develop an order of magnitude estimate for the concentration of source material by dividing the PCB in water concentration by the total suspended solids concentration and then standardizing units to obtain the result in mg of PCB per kg solids. Using this calculation, the readily available data from CDM show PCB concentrations in solids ranging from less than 0.01 mg/kg to 2.65 mg/kg for 25 water samples collected at three sampling stations upstream of the Plainwell Mill. Earlier samples showed higher concentrations. Figure 4-11 of the Generalized SCM report indicates that samples in the 1980s had PCB concentrations approximately two to seven times higher. However, these higher levels would still support the conclusion that PCB concentrations in upstream releases were well below 50 ppm. Thus, these data support the conclusion that there was no release in excess of 500 ppm

between April 18, 1978 and July 2, 1979, and no release in excess of 50 ppm PCBs after July 2, 1979.

CERCLA guidance further supports the conclusion that the sediments are not PCB remediation waste, and establishes that PCBs at Superfund sites should be evaluated at the concentration at which they exist in the environment at the time the response action is determined. *See* EPA, Office of Emergency and Remedial Response, Guidance on Remedial Actions for Superfund Sites with PCB Contamination (July 1990). Specifically, this guidance states that "[c]leanup levels and technologies should not be selected based on the form and concentration of the original PCB material spilled or disposed of at the site prior to EPA's involvement (i.e., the anti-dilution provision of the PCB rules should not be applied)." Thus, this guidance also supports the conclusion that the Plainwell Mill bank sediments are not, and should not be managed as, PCB remediation wastes.

## IV. Conclusion

Given the identical site conditions, it was appropriate for Weyerhaeuser to conduct the emergency response and manage the Plainwell Mill bank sediments in the same manner as the TCRA. Moreover, because the sediments need not be managed as PCB remediation wastes, then Weyerhaeuser need not comply with either the performance-based or the risk-based disposal requirements at 40 C.F.R. 761.61(b) or (c). Thus, Weyerhaeuser need not provide notification to EPA's TSCA program regarding disposal of the sediments at a sanitary landfill.